AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1.-4.   (Cancelled).

5.   (Currently amended) A system for maintaining a historical database of information comprising:

a microcontroller;

a read only memory (ROM) device coupled to the microcontroller, the ROM device storing programs executable by the microcontroller that stores data in the historical database;

a random access memory (RAM) device coupled to the microcontroller and containing the historical database, the RAM device comprising a set of continuously addressed memory locations, and wherein a first portion of the continuously addressed memory locations comprises a segment component, a second portion of the continuously addressed memory locations comprises a point component, a third portion of the continuously addressed memory locations comprises time-stamp data, and a fourth portion of the continuously addressed memory locations comprises log data; and

wherein the first portion is continuous with the second portion which is continuous with the third portion which is continuous with the fourth portion.

5

6.   (Currently amended) The system for maintaining a historical database of information as defined in claim 5 wherein the segment component in the first portion of the continuously addressed memory locations further comprises:

a plurality of segments, each segment comprising:

a list of points of the second portion of continuously addressed memory locations associated with the segment; and

a list of locations in the third portion of the continuously addressed memory space locations associated with the segment.

7.   (Currently amended) The system for maintaining a historical database of information as defined in claim 5 wherein the point information component of the second portion of the continuously addressed memory locations further comprises a plurality of points, each point comprising a list of locations in the fourth portion of the continuously addressed memory space locations where log data corresponding to the plurality of points are stored.

8.   (Currently amended) The system for maintaining a historical database of information as defined in claim 7 wherein the time-stamp data of the third portion of the continuously addressed memory locations further comprises a set of time-stamp data for each of the segments in the first portion of the continuously addressed memory spacelocations.

9.   (Currently amended) The system for maintaining a historical database of information as defined in claim 8 wherein the point information component of the second portion of the

6

continuously addressed memory locations further comprises a plurality of points, each point comprising a list of locations in the fourth portion of the continuously addressed memory ~~space~~ locations where log data corresponding to ~~the~~ each point is stored.

10.   (Currently amended) The system for maintaining a historical database of information as defined in claim 9 wherein the point ~~information~~ component of the second portion of the continuously addressed memory locations further comprises a plurality of points, each point comprising a list of locations in the fourth portion of the continuously addressed memory ~~space~~ locations where log data corresponding to the plurality of points are stored.

11.   (Currently amended) The system for maintaining a historical database of information as defined in claim 10 wherein the segment component in the first portion of the continuously addressed memory locations further comprises:

a plurality of segments, each segment comprising:

a list of points of the second portion of continuously addressed memory locations associated with ~~the~~ each segment; and

a list of locations in the third portion of the continuously addressed memory ~~space~~ locations associated with ~~the~~ each segment.

12.-15. (Cancelled).

16.   (Currently amended) A ~~natural gas flow measurement~~ computer comprising:

a microcontroller;

a read only memory (ROM) device coupled to the microcontroller and storing a software

~~programs~~ executable by the microcontroller that calculates natural gas volumetric flow; and

a historical database of volumetric flow data stored in a random access memory (RAM)

device coupled to the microcontroller, the RAM device comprising a set of memory locations,

and wherein a first portion of the memory locations comprises a segment component, a second

portion of the memory locations comprises a point component, a third portion of the memory

locations comprises a time-stamp, and a fourth portion of the memory locations comprises log

data.

17.   (Currently amended) The ~~natural gas flow measurement~~ computer as defined in claim 16

~~further comprising~~ wherein the first portion is continuous with the second portion which is

continuous with the third portion which is continuous with the fourth portion.

18.   (Currently amended) The ~~natural gas flow measurement~~ computer as defined in claim 16

wherein the segment component in the first portion of the memory locations further comprises:

a plurality of segments, each segment comprising:

a list of points of the second portion of memory locations associated with ~~the~~ each

segment; and

a list of locations in the third portion of the memory ~~space~~ locations associated

with ~~the~~ each segment.

8

19.   (Currently amended) The ~~natural gas flow measurement~~ computer as defined in claim 16 wherein the point ~~information~~ component of the second portion of the memory locations further comprises a plurality of points, each point comprising a list of locations in the fourth portion of the memory ~~space~~ locations where log data corresponding to the plurality of points are stored.

20.   (Currently amended) The ~~natural gas flow measurement~~ computer as defined in claim 16 wherein the time-stamp ~~data~~ of the third portion of the memory locations further comprises a set of time-stamp data for each of the segments in the first portion of the ~~continuously addressed~~ memory ~~space~~ locations.

21.   (Currently amended) The ~~natural gas flow measurement~~ computer as defined in claim 20 wherein the point ~~information~~ component of the second portion of the memory locations further comprises a plurality of points, each point comprising a list of locations in the third portion of the memory ~~space~~ locations where log data corresponding to ~~the~~ each point is stored.

22.   (Currently amended) The ~~natural gas flow measurement~~ computer as defined in claim 21 wherein the point ~~information~~ component of the second portion of the memory locations further comprises a plurality of points, each point comprising a list of locations in the fourth portion of the memory ~~space~~ locations where log data corresponding to the plurality of points are stored.

9

23.   (Currently amended) The ~~natural gas flow measurement~~ computer as defined in claim 22

wherein the segment component in the first portion of the memory locations further comprises:

a plurality of segments, each segment comprising:

a list of points of the second portion of memory locations associated with ~~the~~ each

segment; and

a list of locations in the third portion of the memory space associated with ~~the~~

each segment.

24.   (Currently amended) The ~~natural gas flow measurement~~ computer as defined in claim 23

~~further comprising~~ wherein the first portion is continuous with the second portion which is

continuous with the third portion which is continuous with the fourth portion.

25.-29. (Cancelled).